MARKED VERSION OF PAGE ONE OF THE SPECIFICATION

POST-OPERATIVE~~NEURALGIA~~ PAIN TREATMENT BY PERIPHERAL ADMINISTRATION OF A NEUROTOXIN

by

Kei Roger Aoki, Minglei Cui and Stephen Jenkins

CROSS REFERENCE

This application is a continuation of application serial number 10/199222, filed July 18, 2002, which is a continuation of serial number 09/550,371, filed April 14, 2000, now U.S. patent no. 6,464,986 B1, the entire contents of which prior application and patent are incorporated herein by reference in their entireties.

BACKGROUND

The present invention relates to methods for treating pain. In particular, the present invention relates to methods for treating pain by peripheral administration of a neurotoxin.

Many, if not most ailments of the body cause pain. Generally pain is experienced when the free nerve endings which constitute the pain receptors in the skin as well as in certain internal tissues are subjected to mechanical, thermal, chemical or other noxious stimuli. The pain receptors can transmit signals along afferent neurons into the central nervous system and thence to the brain.

The causes of pain can include inflammation, injury, disease, muscle spasm and the onset of a neuropathic event or syndrome. Ineffectively treated pain can

be devastating to the person experiencing it by limiting function, reducing mobility, complicating sleep, and dramatically interfering with the quality of life.

A muscle spasm can led to stimulation of mechanosensitive pain receptors thereby causing a sensation of pain. Thus, pain can arise from or be due to a muscle spasm. Additionally, the spasm can indirectly stimulate the pain receptors by compressing onto blood vessels, causing ischemia in the tissue, which in turn releases pain inducing substances that stimulate pain receptors to cause pain sensations. Furthermore, a muscle spasm can cause a localized pH reduction which can be perceived as or which can engender pain signals. Hence, pain can be a secondary effect of a muscle spasm or muscle hypertonicity.

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MARKED UP VERSION OF THE CLAIMS

Claims 1-30 (Cancelled).

Claim 31 (Currently Amended) A method for treating post-operative incisional wound pain comprising administering a therapeutically effective amount of a botulinum toxin to an afflicted area of a patient, thereby alleviating the post-operative incisional wound pain.

32. (New) The method of claim 31, wherein the botulinum toxin is selected from the group consisting of the botulinum toxins types A, B, C, D, E, F and G.

33. (New) The method of claim 31, wherein the botulinum toxin is botulinum toxin type A.

34. (New) The method of claim 31, wherein the botulinum toxin is administered before, during or immediately after a surgery.

35. (New) The method of claim 34, wherein the botulinum toxin is administered up to about 10 days before the surgery.

36. (New) The method of claim 31, wherein the post-operative wound pain is not associated with a muscle disorder.

37. (New) The method of claim 31, wherein the post-operative incisional wound pain is alleviated for about 2 to 6 months.

38. (New) A method for treating post-operative incisional wound pain comprising administering a therapeutically effective amount of a botulinum toxin type A to an afflicted area of a patient before, during, or immediately after a

surgery, thereby alleviating the post-operative incisional wound pain for about 2-6 months.